

What is claimed is:

1. An isolated nucleic acid molecule expressed by a tissue selected from the group consisting of a flea HMT tissue and a flea HNC tissue, identified by a method comprising: (a) constructing a cDNA library enriched for HMT or HNC expressed
5 sequences; and (b) identifying a nucleic acid molecule in said library.
2. The nucleic acid molecule of Claim 1, wherein said nucleic acid molecule comprises a nucleic acid sequence selected from the group consisting of a nucleic acid sequence of Table I and a nucleic acid sequence of Table II.
3. An isolated nucleic acid molecule that hybridizes to a nucleic acid
10 sequence selected from the group consisting of a nucleic acid sequence of Table I, a nucleic acid sequence of Table II, a nucleic acid sequence complementary to a nucleic acid sequence of Table I, and a nucleic acid sequence complementary to a nucleic acid sequence of Table II, under conditions comprising (a) hybridizing in a solution comprising 1X SSC in the absence of helix destabilizing agents, at a temperature of 37°C
15 and (b) washing in a solution comprising 1X SSC in the absence of helix destabilizing agents, at a temperature of 47.5°C.
4. The nucleic acid of Claim 3, wherein said nucleic acid molecule comprises a nucleic acid sequence that is at least 70% identical to a nucleic acid sequence selected from the group consisting of a nucleic acid sequence of Table I and a nucleic acid
20 sequence of Table II.
5. The nucleic acid of Claim 3, wherein said nucleic acid molecule comprises a nucleic acid sequence selected from the group consisting of a nucleic acid sequence of Table I and a nucleic acid sequence of Table II.
6. A recombinant molecule comprising a nucleic acid molecule as set forth in
25 Claim 3 operatively linked to a transcription control sequence.
7. A recombinant virus comprising a nucleic acid molecule as set forth in Claim 3.

8. A recombinant cell comprising a nucleic acid molecule as set forth in Claim 3.

9. A method to produce a protein, said method comprising (a) transfecting a host cell with a nucleic acid molecule of Claim 3 to produce a recombinant cell;
5 (b) culturing the recombinant cell under conditions effective to produce said protein in said recombinant cell; and (c) recovering the protein.

10. The method of Claim 9, wherein said nucleic acid molecule comprises a nucleic acid sequence that is at least 70% identical to a nucleic acid sequence selected from the group consisting of a nucleic acid sequence of Table I and a nucleic acid
10 sequence of Table II.

11. The method of Claim 9, wherein said nucleic acid molecule comprises a nucleic acid sequence selected from the group consisting of a nucleic acid sequence of Table I and a nucleic acid sequence of Table II.

12. An isolated protein selected from the group consisting of: an isolated
15 protein encoded by a nucleic acid molecule that hybridizes to a nucleic acid sequence selected from the group consisting of a nucleic acid sequence complementary to a nucleic acid sequence of Table I and a nucleic acid sequence complementary to a nucleic acid sequence of Table II, under conditions comprising (a) hybridizing in a solution comprising 1X SSC in the absence of helix destabilizing agents, at a temperature of 37°C
20 and (b) washing in a solution comprising 1X SSC in the absence of helix destabilizing agents, at a temperature of 47.5°C.

13. The protein of Claim 12, wherein said nucleic acid molecule comprises a nucleic acid sequence selected from the group consisting of a nucleic acid sequence of Table I and a nucleic acid sequence of Table II.

25 14. The protein of Claim 12, wherein said nucleic acid molecule comprises a nucleic acid sequence that is at least 70% identical to a nucleic acid sequence selected

from the group consisting of a nucleic acid sequence of Table I and a nucleic acid sequence of Table II.

15. An isolated antibody that selectively binds to a protein as set forth in Claim 12.

5 16. A method to identify a compound capable of inhibiting activity of an isolated protein of Claim 12, said method comprising contacting an isolated protein of Claim 12 with a putative inhibitory compound under conditions in which, in the absence of said compound, said protein has activity; and determining if said putative inhibitory compound inhibits said activity.

10 17. A kit to identify a compound capable of inhibiting activity of an isolated protein of Claim 12, said test kit comprising an isolated protein of Claim 12 and a means for determining the extent of inhibition of said activity in the presence of a putative inhibitory compound.

15 18. A composition comprising an excipient and an isolated nucleic acid molecule of Claim 3.

19. A composition comprising an excipient and an isolated protein of Claim 12.

20. A composition comprising an excipient and an isolated antibody of Claim 15.